

**FILED**

**OCT 13 2011**

Missouri Public  
Service Commission

Exhibit No.:

Issues: Energy Efficiency

Witness: Henry E. Warren

Sponsoring Party: MO PSC Staff

Type of Exhibit: Surrebuttal Testimony

Case No.: GT-2011-0410

Date Testimony Prepared: September 21, 2011

**MISSOURI PUBLIC SERVICE COMMISSION**

**UTILITY OPERATIONS DIVISION**

**SURREBUTTAL TESTIMONY**

**OF**

**HENRY E. WARREN**

**UNION ELECTRIC COMPANY**

**d/b/a Ameren Missouri**

**CASE NO. GT-2011-0410**

*Staff* Exhibit No. 2  
Date 9/21/11 Reporter JL  
File No. GT-2011-0410

Jefferson City, Missouri  
September 2011

**BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF MISSOURI**


In the Matter of the Union Electric )  
Company's (d/b/a Ameren Missouri) Gas )  
Service Tariffs Removing Certain )  
Provisions for Rebates from Its Missouri )  
Energy Efficient Natural Gas Equipment )  
and Building Shell Measure Rebate )  
Program )

Case No. GT-2011-0410

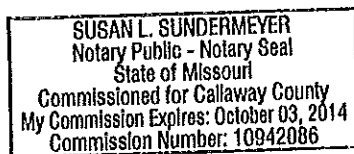
**AFFIDAVIT OF HENRY E. WARREN**

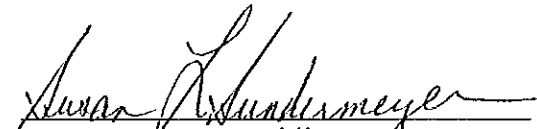
STATE OF MISSOURI     )  
                                  ) ss  
COUNTY OF COLE     )

Henry E. Warren, of lawful age, on his oath states: that he has participated in the preparation of the following Surrebuttal Testimony in question and answer form, consisting of 8 pages of Surrebuttal Testimony to be presented in the above case, that the answers in the following Surrebuttal Testimony were given by him; that he has knowledge of the matters set forth in such answers; and that such matters are true to the best of his knowledge and belief.

  
Henry E. Warren

Subscribed and sworn to before me this 21<sup>st</sup> day of September, 2011.



  
Notary Public

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22

Table of Contents

**SURREBUTTAL TESTIMONY**

**OF**

**HENRY E. WARREN**

**UNION ELECTRIC COMPANY**

**d/b/a Ameren Missouri**

**CASE NO. GT-2011-0410**

**I. EXECUTIVE SUMMARY ..... 1**

**II. RESPONSE TO REBUTTAL TESTIMONY OF DNR WITNESS JOHN BUCHANAN ON RESIDENTIAL AND GENERAL SERVICE ENERGY EFFICIENCY..... 2**

**III. RESPONSE TO REBUTTAL TESTIMONY OF RYAN KIND, OPC, ON RESIDENTIAL AND GENERAL SERVICE ENERGY EFFICINCY MEASURES. .... 7**

**IV. STAFF RECOMMENDATION ..... 8**

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18
- 19
- 20
- 21
- 22
- 23
- 24
- 25

2  
24  
5

6

7

8

9

10  
11

12

## 13

13

14

**II. RESPONSE TO REBUTTAL TESTIMONY OF DNR WITNESS JOHN BUCHANAN ON RESIDENTIAL AND GENERAL SERVICE ENERGY EFFICIENCY**

Q. What portion of the rebuttal testimony submitted by Mr. Buchanan are you going to address?

A. Mr. Buchanan states that the cost-effectiveness of the energy efficiency programs has previously been addressed by the Commission with a quote from paragraph 18 of the Stipulation and Agreement in Case No. GR-2007-0003 which states, "The Collaborative will consider cost effectiveness and the optimal design of implementing energy efficiency programs." (Buchanan Rebuttal, page 5, lines 15-21). I will provide additional information to the Commission regarding who had previously reviewed these measures to determine their cost-effectiveness and through what process.

The energy efficiency measures that Ameren Missouri is now asserting are not cost-effective were among the energy efficiency programs included in the exemplar or specimen tariff listed in Appendix C of the Unanimous Stipulation and Agreement (Stipulation) in Case No. GR-2010-0363, which was Ameren Missouri Gas's most recent rate case and the rate case subsequent to Case No. GR-2007-0003. The parties to this case are all members of the collaborative to which Mr. Buchanan referred and all parties to the Stipulation agreed on the measures to be included as part of the Stipulation Appendix C. These exemplar tariff sheets were filed by Ameren Missouri as part of the Stipulation and approved by the Commission in its Order Jan 19, 2011 Order Approving Stipulation and Agreement. The energy efficiency programs and the measures contained in the programs were agreed to as part of the Stipulation in Case No. GR-2010-0363 and specifically included in Appendix C as part of the overall Stipulation. In the most recent rate case, where the same parties agreed that the programs containing the same measures

Surrebuttal Testimony of  
Henry E. Warren

1 should continue to be offered to Ameren Missouri's customers, Ameren Missouri did not  
2 raise any issue regarding the *ex-ante* cost effectiveness of the measures. Ameren  
3 Missouri's decision to unilaterally apply an *ex ante* Total Resource Cost Test (TRC)  
4 process as a cost effectiveness measure was not agreed to, or presented to, the  
5 Collaborative before or during the most recent rate case and is not in compliance with the  
6 Unanimous Stipulation.

7 Q. Are there other portions of the rebuttal testimony of Mr. John Buchanan  
8 you want to address?

9 A. Yes. Mr. Buchannan states that Ameren Missouri filed tariff revisions  
10 proposing to remove energy efficiency measures on "June 8, 2011, or approximately 3  
11 months from the effective date of the compliance tariffs" (page 12, lines 21-22).  
12 However, Staff notes this was actually the second time that Ameren Missouri filed  
13 revisions that would remove energy efficiency measures from its rebate program.  
14 Ameren Missouri had previously filed tariff revisions removing energy efficiency  
15 measures on May 27, 2011. These tariff revisions were withdrawn by Ameren Missouri.

16 Q. Did Ameren propose to the collaborative any other changes to the energy  
17 efficiency program prior to filing the May 27, 2011 revisions?

18 A. Before it filed this case, Ameren Missouri had discussed revisions with the  
19 collaborative, also known as the Energy Efficiency Advisory Group (EEAG), which  
20 would have restricted the Energy Efficiency (EE) Program by limiting the potential  
21 energy efficiency program participants. Draft tariff sheets were sent to the EEAG on  
22 March 10, 2011, only 18 days after Ameren Missouri's tariff compliance filing  
23 containing the energy efficiency programs agreed to in the Unanimous Stipulation and

1 Agreement became effective (February 20, 2011). The non-Ameren Missouri members  
2 of the EEAG<sup>1</sup> expressed concerns about this change in policy which only affected  
3 Ameren Missouri natural gas customers in the Columbia area. Columbia is the only  
4 Ameren Gas service area in which Ameren does not also provide electric service to its  
5 gas customers. The Columbia municipal electric utility was also offering rebates for  
6 building shell energy efficiency measures. The City of Columbia actively promotes its  
7 electric energy efficiency programs and had included references to Ameren Missouri gas  
8 energy efficiency programs in its promotions. For reasons of which Staff is unaware,  
9 Ameren Missouri subsequently decided not to file this tariff change.

10 Q. Does Staff agree with Mr. Buchanan's characterization of the "start/stop"  
11 approach to energy efficiency?

12 A. Yes, Staff agrees with Mr. Buchannan that, "This 'start/stop' approach to  
13 energy efficiency program management will not result in a positive outcome and could  
14 possibly deter future participation by Ameren Missouri residential and general service  
15 customers" (page 20, lines 16-18).

16 This issue was addressed Case No. GT-2011-0130. Case No. GT-2011-0130  
17 related to a tariff filing that would have ended the availability of customer rebates from  
18 an energy efficiency program that was funded by Ameren Missouri's ratepayers. In the  
19 previous Ameren Missouri gas rate case, \$100,000 was included in Ameren Missouri's  
20 revenue requirement for rebates. As soon as Ameren Missouri gave out \$100,000 in  
21 rebates, it wanted to shut the program down. However, Ameren Missouri also has an  
22 authorized regulatory asset for any rebates totaling more than the \$100,000 it had  
23 collected from its customers. Rather than use the regulatory asset account, Ameren

---

<sup>1</sup> The EEAG consists of Ameren Missouri, Staff, Office of Public Counsel and DNR.

1 proposed terminating rebates even though it had just launched an advertising campaign  
2 promoting the rebates. Subsequent to Ameren Missouri filing the proposed tariff sheet  
3 revisions and after the non-Ameren EE Collaborative members objected to the  
4 termination of the rebates, the Office of the Public Counsel (OPC) filed to suspend the  
5 proposed tariff changes. This case was incorporated into Case No. GR-2010-0363 and  
6 the Stipulation settled the differences between the parties by increasing the amount  
7 included in the revenue requirement for energy efficiency programs to \$ \$437,000. This  
8 was described in paragraph 6(C) in the Stipulation in GR-2010-0363 which assured that  
9 the measures in the tariff would remain in place until December 31, 2012. In addition to  
10 the \$437,000 in rate payer money for energy efficiency programs, Ameren Missouri is  
11 still authorized to use a regulatory asset account for any expenses above this amount.

12 Q. Does Staff agree with Mr. Buchanan that Ameren Missouri attempts to  
13 justify its proposal to remove energy efficiency measures based on its new analysis?

14 A. Yes. Staff agrees with Mr. Buchanan that Ameren Missouri attempted to  
15 justify its proposal to remove energy efficiency agreed to in the Stipulation based on  
16 using a Total Resource Cost (TRC) analysis completed by Ameren Missouri witness Kyle  
17 Shoff. (Buchanan rebuttal, page 6 lines 9 – 12). Mr. Shoff's TRC analysis of energy  
18 efficiency measures in the current proposed tariff filing shows a benefit/cost ratio of less  
19 than one and that the Company believes these measures should be removed.

20 Staff agrees with Mr. Buchanan that Ameren Missouri's reliance on the *ex ante*  
21 TRC analysis as the only means of evaluating energy efficiency measures is directly in  
22 violation of the Unanimous Stipulation and Agreement in Case No. GR-2010-0363.



1 Further, even if the Commission were to use the TRC test as a standard for cost-  
2 effectiveness, Staff finds the Ameren TRC analysis to have several deficiencies. One  
3 deficiency is that Ameren Missouri's typical Ameren customer home used in the analysis  
4 is based on a survey of Ameren Missouri's electric customers. This is not representative  
5 of Ameren Missouri's gas customers because a majority of Ameren Missouri's electric  
6 customers are in the St. Louis Metro area whereas Ameren's natural gas customers are  
7 outside the St. Louis Metro area.

8 The second deficiency is that Ameren Missouri's TRC assumptions do not match  
9 one of the tariff's requirements. Ameren Missouri's tariff specifies that the home  
10 receiving the building shell measures be evaluated by an energy auditor that determines  
11 that these measures are cost effective. If the measure is not cost-effective for the typical  
12 home, it will not be installed in the typical home. The measure will only be installed  
13 where it is cost-effective, i.e., atypical homes,

14 The third deficiency is the numbers used by Ameren Missouri in its TRC  
15 calculations have not been shown to be the same as, or similar to, the numbers that would  
16 be experienced by Ameren Missouri natural gas customers. For example, Ameren has  
17 not shown that the costs of performing the building shell measures used in the TRC  
18 calculation are the costs that would actually be incurred in Ameren Missouri's natural gas  
19 service territory.

20 While the Stipulation requires that the post-implementation evaluation be  
21 performed by an independent third party, it is standard practice that a third party be  
22 retained to perform any pre-implementation or post-implementation analysis, rather than

1 the Company or the stakeholders. This practice avoids any perception of bias or actual  
2 bias in the cost-effectiveness analysis.

3 **III. RESPONSE TO REBUTTAL TESTIMONY OF RYAN KIND, OPC, ON**  
4 **RESIDENTIAL AND GENERAL SERVICE ENERGY EFFICINCY**  
5 **MEASURES.**

6 Q. Did Mr. Kind mention the timing of the Ameren Missouri's filing of  
7 revised tariff sheets?

8 A. Yes, he did. Beginning on page 10, line 14 of his Rebuttal Testimony, Mr.  
9 Kind also discusses the timing of Ameren Missouri's proposals to modify its energy  
10 efficiency program tariff sheets starting on March 10, 2011, just eighteen days after the  
11 effective date of the tariff sheets, February 20, 2011. (Rebuttal Testimony of Ryan Kind,  
12 page 10 lines 14 - through page 11 line 2). Less than a month after the energy efficiency  
13 tariff sheets were approved by the Commission's January 19, 2011 Order, Ameren  
14 Missouri began the process of modifying the energy efficiency measures included in its  
15 tariff despite fact that all parties to the January 4, 2011 Unanimous Stipulation, agreed  
16 that these programs were to be in place until December 31, 2012. Ameren Missouri is  
17 currently collecting the cost of these programs from ratepayers.

18 Q. What is the second portion of the rebuttal testimony submitted by Mr.  
19 Kind you wish to address?

20 A. Beginning on page 7, line 10 of his rebuttal testimony Mr. Kind also  
21 discusses Ameren Missouri's previous attempt to discontinue rebates in October 2010.  
22 Ameren Missouri had stopped accepting new rebate applications while at the same time  
23 increasing the marketing of its rebate programs. This resulted in complaints from  
24 Ameren customers and confusion about the energy efficiency program. The  
25 discontinuation of rebates was dealt with in Case No. GT-2011-0310.

Surrebuttal Testimony of  
Henry E. Warren

1           Q.     What is the third portion of Mr. Kind's rebuttal testimony that Staff  
2 wishes to address?

3           A.     Staff agrees with Mr. Kind's opposition to Ameren Missouri request that  
4 the Commission establish the Ameren Missouri TRC computation as the measure of cost  
5 effectiveness for natural gas energy efficiency. Staff agrees with Mr. Kind that the  
6 Commission should not make a determination in this case about what test best measures  
7 the cost-effectiveness of natural-gas energy-efficiency measures and programs. Staff  
8 opposes the adoption in this case of an electric based demand-side management TRC as  
9 Ameren Missouri has suggested. TRC, as calculated by Ameren Missouri is  
10 inappropriate for Ameren Missouri's natural gas customers. (Kind rebuttal, page 14 lines  
11 4 – 21).

12   **IV.   STAFF RECOMMENDATION**

13           Q.     What is Staff's recommendation regarding Ameren Missouri's request to  
14 revise its energy efficiency program tariff sheets?

15           A.     Staff's recommendation is for the Commission to not approve the tariff  
16 sheets filed in this case to remove energy efficiency measures. The tariff revisions are in  
17 direct violation of the Stipulation and Agreement in Case No. GR-2010-0363 and should  
18 be rejected.

19           Q.     Does this conclude your surrebuttal Testimony?

20           A.     Yes, it does.

**HENRY WARREN, PhD**  
**REGULATORY ECONOMIST**  
**UTILITY OPERATIONS DIVISION**  
**ENERGY DEPARTMENT**

**EDUCATION AND EXPERIENCE**

I received my Bachelor of Arts and my Master of Arts in Economics from the University of Missouri-Columbia, and a Doctor of Philosophy (PhD) in Economics from Texas A&M University. Prior to joining the PSC Staff (Staff), I was an Economist with the U.S. National Oceanic and Atmospheric Administration (NOAA). At NOAA I conducted research on the economic impact of climate and weather. I began my employment at the Commission on October 1, 1992 as a Research Economist in the Economic Analysis Department. My duties consisted of calculating adjustments to test-year energy use based on test-year weather and normal weather, and I also assisted in the review of Electric Resource Plans for investor owned utilities in Missouri. From December 1, 1997, until May 2001, I was a Regulatory Economist II in the Commission's Gas Department, where my duties included analysis of issues in natural gas rate cases and were expanded to include reviewing tariff filings, applications and various other matters relating to jurisdictional gas utilities in Missouri. On June 1, 2001 the Commission organized an Energy Department and I was assigned to the Tariff/Rate Design Section of the Energy Department. My duties in the Energy Department include analysis of issues in rate cases of natural gas and electric utilities, tariff filings, applications, and various other matters relating to jurisdictional gas and electric utilities in Missouri, including review of Electric Resource Plans and Regulatory Plans for investor owned electric utilities in Missouri. I have also served on various task forces, collaboratives, and working groups dealing with issues relating to jurisdictional natural gas and electric utilities.

**MISSOURI PUBLIC SERVICE COMMISSION**  
**CASES IN WHICH PREPARED TESTIMONY,**  
**REPORT, OR REVIEW WAS SUBMITTED BY:**  
**HENRY E. WARREN, PhD**

<u>COMPANY NAME</u>	<u>CASE NUMBER</u>
St. Joseph Light and Power Company	GR-93-042 <sup>1</sup>
Laclede Gas Co.	GR-93-149
Missouri Public Service	GR-93-172 <sup>1</sup>
Western Resources	GR-93-240 <sup>1</sup>
Laclede Gas Co.	GR-94-220 <sup>1</sup>
Kansas City Power & Light Co.	EO-94-3601 <sup>2</sup>
United Cities Gas Co.	GR-95-160 <sup>1</sup>
UtiliCorp United, Inc.	EO-95-187 <sup>2</sup>
The Empire District Electric Co.	ER-95-279 <sup>1</sup>
The Empire District Electric Co.	EO-96-56 <sup>2</sup>
St. Joseph Light and Power Company	EO-96-198 <sup>2</sup>
Laclede Gas Co.	GR-96-193 <sup>1</sup>
Missouri Gas Energy	GR-96-285 <sup>1</sup>
The Empire District Electric Co.	ER-97-081 <sup>1</sup>
Union Electric Co.	GR-97-393 <sup>1</sup>
Missouri Gas Energy	GR-98-140 <sup>1</sup>
Laclede Gas Co.	GR-98-374 <sup>1</sup>
St. Joseph Light & Power Company	GR-99-246 <sup>1</sup>
Laclede Gas Co.	GR-99-315 <sup>1</sup>
Union Electric Company (d/b/a AmerenUE)	GR-2000-512 <sup>1</sup>
Missouri Gas Energy	GR-2001-292 <sup>1</sup>
Laclede Gas Co.	GR-2001-629 <sup>1</sup>

---

<sup>1</sup>Testimony includes computations to adjust test year volumes, therms, or kWh to normal weather.

<sup>2</sup>Staff Report or Review

**MISSOURI PUBLIC SERVICE COMMISSION**  
**CASES IN WHICH PREPARED TESTIMONY,**  
**REPORT OR REVIEW WAS SUBMITTED BY:**

**HENRY E. WARREN, PHD**

**(CONTINUED)**

<u><b>COMPANY NAME</b></u>	<u><b>CASE NUMBER</b></u>
Laclede Gas Company	GC-2002-0110 <sup>2</sup>
Laclede Gas Company	GR-2002-0356 <sup>1</sup>
Aquila, Inc.	GC-2003-0131 <sup>2</sup>
Laclede Gas Company	GC-2003-0212 <sup>2</sup>
Laclede Gas Company	GT-2003-0117
Aquila, Inc., (d/b/a Aquila Networks MPS and L&P)	GR-2004-0072 <sup>1</sup>
Missouri Gas Energy	GR-2004-0209
Laclede Gas Company	GC-2004-0240 <sup>2</sup>
Kansas City Power & Light Company	EO-2005-0329 <sup>2</sup>
Union Electric Company (d/b/a AmerenUE)	EO-2006-0240 <sup>2</sup>
The Empire District Electric Company	ER-2006-0315
The Atmos Energy Corporation	GR-2006-0387 <sup>1</sup>
Missouri Gas Energy	GR-2006-0422 <sup>1</sup>
Union Electric Company (d/b/a AmerenUE)	GR-2007-0003 <sup>1</sup>
Kansas City Power & Light Company	EO-2007-0008 <sup>2</sup>
Aquila, Inc., (d/b/a Aquila Networks MPS and L&P)	EO-2007-0298 <sup>2</sup>
Laclede Gas Company	GR-2007-0208 <sup>2</sup>
Missouri Gas Energy – The Empire District Gas Company	GA-2007-0289, et al
Union Electric Company (d/b/a AmerenUE)	EO-2007-0409 <sup>2</sup>

---

<sup>1</sup>Testimony includes computations to adjust test year volumes, therms, or kWh to normal weather.

<sup>2</sup>Staff Report or Review

**MISSOURI PUBLIC SERVICE COMMISSION**  
**CASES IN WHICH PREPARED TESTIMONY,**  
**REPORT OR REVIEW WAS SUBMITTED BY:**

**HENRY E. WARREN, PhD**

**(CONTINUED)**

The Empire District Electric Company	EO-2008-0069 <sup>2</sup>
Union Electric Company (d/b/a AmerenUE)	ER-2008-0318
Missouri Gas Energy	GR-2009-0355 <sup>1</sup>
The Empire District Gas Company	GR-2009-0434
The Empire District Electric Company	ER-2010-0130
Laclede Gas Company	GR-2010-0171 <sup>2</sup>
Atmos Energy Corporation	GR-2010-0192
Chairman's Request for Status Report Regarding Energy Efficiency ...	AO-2011-0035 <sup>2</sup>
Kansas City Power & Light	ER-2010-0355 <sup>2</sup>
Kansas City Power & Light (Surrebuttal)	ER-2010-0355
KCP&L - Greater Missouri Operations	ER-2010-0356 <sup>2</sup>
KCP&L - Greater Missouri Operations (Surrebuttal)	ER-2010-0356
Union Electric Company (d/b/a Ameren Missouri)	GR-2010-0363 <sup>2</sup>
Union Electric Company (d/b/a Ameren Missouri) (Rebuttal)	GR-2010-0363
Union Electric Company (d/b/a Ameren Missouri)	ER-2011-0028 <sup>2</sup>
Empire District Electric Company	ER-2011-0004 <sup>2</sup>
Veolia Energy Kansas City, Inc.	HR-2011-0241

---

<sup>1</sup>Testimony includes computations to adjust test year volumes, therms, or kWh to normal weather.

<sup>2</sup>Staff Report or Review